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M. Anderson

CPRUSSEL

R

Nec, quia desperes invicti membra Glyconis,
Nodosa corpus nolis prohibere chiragra.

HOR. Epist. I.

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A PRACTICAL
ESSAY
ON THE
Use and ABUSE
OF
WARM BATHING
IN
GOUTY CASES.

By WILLIAM OLIVER, M. D.
Of BATH.

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A THERMAL

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ON THE

USE AND ABUSE

OF

WARM BATHING

IN

BY WILLIAM OLIVER, M.D.

OF THE UNIVERSITY OF CHICAGO

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A N
E S S A Y
O N
W A R M B A T H I N G ,
I N
G O U T Y C A S E S .

THE chief cause of false judgments, and different opinions, amongst mankind about facts is, that they are seldom truly represented, some circumstances being generally added or omitted, which if known precisely, would have altered the Idea of them in the mind of the person to whom they are related.

THE Fact I am about to consider in the following Sheets is ----Whether warm Bathing be useful, or hurtful, in gouty Cases. This Fact, one should imagine, might easily be determined by experience: Yet great Physicians are still of different Opinions about it.----- How comes that difference still to subsist?----- From the want of a just distinction between *proper* and *improper Bathing*. A Gouty Person bathes; is hurt by Bathing; the Fact is related to a physician at a distance, without any other circumstance; he concludes, from several such histories, that *Bathing* in gouty Cases is wrong. The Physician on the spot saw this Person bathe; but he likewise observed, that he was in an unfit state to bathe; that he went into the Water without proper Preparation; that he staid in it much too long; and continued a Regimen of Diet, very improper for his circumstances of Health, or Method of Cure.--- All that he concludes from

from the ill success of such a Person is --- that *improper Bathing* is a dangerous Thing : --- He by no means changes his Opinion of Bathing : He still holds *proper Bathing* in *gouty Cases* to be right, because he has found it to be so by experience. But these two Doctors must ever differ in their Opinions about the Problem I have laid down, 'till He, who lives at a distance, becomes rightly informed of all the circumstances of the Fact, which fell within the observation of him, who alone can judge whether the Patient bath'd properly or not. Nothing can tend more to enable both Physicians and Patients to judge rightly about Bathing, than a plain and faithful account of the proper, and improper methods of using that powerful remedy ; and of the usual consequences which attend the one and the other. A careful attention to the nature of these opposite methods, and a right distinction being made be-

tween them, would, in a great measure, reconcile the different opinions, which arise merely from imperfect information. If what I am about to offer can render this Distinction more clear and precise than it has yet appear'd, it will give me great pleasure. But as I write not to instruct Physicians, but to inform Patients of what belongs to their own Interest; that they may understand me more clearly, I thought it could not be amiss to premise a short, and plain account of the Animal OEconomy.

MOST of the Diseases, which affect the Body, are owing to such an indisposition of the humours as renders them unfit to pass through their canals so freely, that a total, and perfect circulation may be performed. When there is such an indisposition of the fluids, whether it is owing to the undue tone of the solids, or to any other cause, Obstructions, in some part or other of the
Ma-

Machine, will immediately be formed, and according to the bulk of the unnatural combinations of the particles of the fluids, a distemper will begin in a larger, or lesser series of the canals. It would be endless to try to enumerate all the different diseases which are produced by obstructions. They are as various as the qualities and quantities of the obstructing matter, and the texture, and uses of the parts affected.

THIS Mechanism being allowed, let us try, from its laws, to form the plainest notion we can of the Gout, in its different stages; let us see whether the use of bathing, in that distemper, has any foundation in Theory, as we assert it to have in practice, from happy experience.

WHEN the Heart of Man was first taught to move, He only, *who saw us before we were*, can tell. As soon as it does move, it
begins.

begins to protrude the fluids thro' the canals, form'd to receive them; first opening the largest, and gradually unfolding the least, in a continual decreasing series. By this method, the Body is daily encreased in its bulk, and the Sphere of circulation is enlarged. The Heart, by its propelling force, continues thus to unfold the vessels, 'till their resistance, becomes superior to its force, in its longitudinal direction. Then longitudinal Growth ceases, but the sides of the Vessels still giving way, the animal continues to grow in breadth only. As different series of vessels are thus unfolded, various Phænomena in the animal body appear. At seven months Teeth begin to push thro' the Gums; at seven years they drop off, shov'd out of their places by their growing Successors; at fourteen another great change happens, and at twenty-one the chins of the males begin to shew the signs of manhood. When the greatest number of vessels are open, and
admit

admit a free circulation of the fluids thro' them, *that* is the moment in which the animal body has attained its highest perfection in health, strength, and activity. It is probable that this Perfection is no more really stationary than the Sun is at the solstice ; it immediately declines ; every day bereaves us of some, or other of the smallest vessels, which were pervious the day before ; the sphere of circulation is gradually lessened ; our strength decays, however imperceptibly ; we feel ourselves loose our activity ; we grow stiff ; the circulation is brought into a very narrow compass ; the vessels become rigid, and bony ; the Heart, grown feeble, can no longer overcome their resistance ; the natural death of the animal ensues.

*Multa ferunt anni venientes commoda secum,
Multa recedentes adimunt.* HOR.

As some small vessels are daily lost, and others begin to be obstructed, particular distempers generally appear at such, and such
par-

particular Ages ; and persons are not ordinarily subject to some others after they have past the time of life at, or about which, they commonly shew themselves. Thus the Red-Gum is the disease of Infancy ; Consumptions of Youth ; Rheumatism of Manhood ; and the Gout of Old-Age. But a wrong formation of Parts ; hereditary taints ; manner of life, and a thousand accidents which Flesh-and-Blood is Heir to, render all such appearances uncertain. As an uncommon hot Season will bring forth the Flowers and Fruits of *May* in *February*, or *March*, or an unusual cold one keep them back 'till *June* ; so are the diseases of the body often produced prematurely, or deferred to a stage of life, to which they do not properly belong ; the youth shall be torn to pieces by the Gout, or the old man die of the Measles, or the Small-pox ; but, for the most part, the Gout does not appear till a few years after the Animal has attained its greatest bodily perfection, and

endeavours to expel the offending matter out of the body. This fever lasts 'till the gouty matter in the joint is in a great measure push'd through the vessels in which it stuck, and which is either carried off by perspiration, or, if it is too gross for that evacuation, by sweat or urine. Nature having thus obtained her end, the Fever subsides, and the poor sufferer is blessed with repose. A blessing, sweet indeed, but of short duration! A fresh collection of gouty matter, gradually heaping up in the joint, all the day, acts over the same tragedy the following night, and the next to that, and so on, till the habit has not gouty matter enough left in it to supply another fit. Then the pain ceases; the inflammation goes off; the part swells; the swelling decreases; the Scarf-Skin becomes a branny scurf; strength gradually returns, and the patient finds himself more clear in his understanding, chearful in his spirits, and active in his body, than he was before the fit,

as

as if all the juices, by being freed from this gouty matter, had been depurated and refined. Health then succeeds to make the poor creature amends for the torments he has endured, which are as soon forgot as Child-bed pains. Such a fit requires little assistance from physick. Patience, flannel, water-gruel, and clear whey, will be sufficient helps to nature to enable her to perfect her own work.

FROM the histories of this distemper, which we meet with in authors, we can't but believe that such regular fits are much less frequent than they were formerly. Children under puberty are often attacked, Women are become very subject to the gout, and the fits in men seldom prove truly critical.

THAT hereditary gout is more common, and appear earlier in life than formerly, may arise from the distemper itself having

been spread wider, by the universal encrease of luxury among the rich, and of the horrid lust after gin amongst the poor. The valetudinary offspring, of such debauch'd parents, arrive at the imperfections of fifty or sixty years of age, before they can really number twenty-one.

WHEN the appearance of this distemper is thus premature, it seldom keeps its original form; it's intervals are short, and irregular, and the weak frame is soon destroyed by its violence.

WHEN the fits of the gout are not *critical*, they lay the foundation of numberless miseries. They fail of being so, when the force of the solids is naturally so weak, or rendered so, by an injudicious low diet, that they have not sufficient force to grind the gouty matter, by the help of the fever, fine enough for right expulsion thro' the common emunctories; or from the habit's being so over-

loaded

loaded with gouty matter, that the fever cannot separate it from the blood, and juices, in order to carry it on thro' the small vessels of the joints, quite out of the body.

WHILE this gouty matter is carried about in the body, mixt with the other fluids, it often occasions Head-achs, Vertigos, Sick-ness at Stomach, Loss of Appetite, Sour Belchings, Heart-burns, Flatulences, and wandering twitching pains in the limbs. When it is duly separated from the other humours, but deposited upon the joints in a greater quantity than can be critically discharged from them, it tears the small vessels to pieces; makes cavities wherein it may stagnate; by stagnating it thickens, and grows acrid; curdles the Mucus designed for lubricating the joints, and hardens it into chalky matter, which, as it encreases, destroys the motion of the joint, distends the skin, inflames, breaks

breaks thro' and discharges itself, either in a fluid, or solid form, generally in both.

THE joints are not the only parts in which this cretaceous matter will lodge; a finer sort of it will find its way into the tendons, which it will thicken, stiffen, and render unfit for muscular motion; whilst a grosser kind will form large flat cakes of chalk in the interstices of the muscles themselves. Persons thus affected loose the use of their limbs, and have recourse to warm bathing for their recovery. To know whether they are right in this manner of proceeding, let us consider what may reasonably be expected, by persons under such circumstances, from bathing.

THE received Maxim ----

Tollere nodosam nescit Medicina podagram,
greatly discourages all attempts of this kind :
but

but we ought to consider that *to relieve*, when we can't *totally cure distempers*, is a very desirable end. To prove the possibility of restoring the use of limbs, long lost by the severity of the gout, Mr. *Long*, whose case is recorded by Dr. *Peirce*, and others, many years ago, and Sr. *Cordel Firebrass*, who lives, and owns with gratitude the good effects of warm bathing, are very remarkable instances; and many others might be produced of less note.

SINCE it appears then from such cases to be possible, let us enquire into the probability of the thing, by considering the power of our warm Baths.

As warm water they are allowed to soften, and relax rigid fibres, and to dissolve saline, and gelatinous concretions. But the saline, sulphureous, and saponaceous particles, manifestly contained in the Bath-Waters, must render them more penetrating, and more
pow-

powerful solvents than common water. Hence I think it reasonable to expect that our baths should do, what in fact we find they have done; that is, that they should remove the obstructing gouty matter from the parts wherein it was lodged, by rendering it so fluid, as to be again carried on in the course of circulation. The morbid concretions thus dissolved, and the limb or joint being freed from its burden, cannot but in whole, or in part, recover its natural use. Numbers now alive feel this truth, and are thankful.

WHAT benefit bathers may receive by breathing an air, richly impregnated with the most active, and volatile particles of the water, which are continually flying off from the surface of the bath, has not, that I know of, been yet duly considered. But when we recollect with how much greater power the water, drank immediately from the pump, before its volatile parts are all flown away, has

has, beyond that which is drank a few minutes after it has been in the glass, we can't but own that breathing those particles, for thirty or forty minutes, must have a considerable effect ; and indeed, if the Lungs are tender, and subject to catarrhs, and inflammations, a very bad one. But to return,

LET us now enquire whence the opinion, *that warm bathing is so dangerous in gouty cases*, does arise.

THEY who maintain it say, ' That when
' the gouty matter is dissolved, and brought
' again into the circulation, we cannot be
' sure what will become of it. We don't
' know but it may be thrown upon the
' lungs, the liver or the brain, and then this
' method of cure would be worse than the
' disease; nay, there are not wanting histories
' to prove that, in fact, it has been so thrown.
' It is dangerous to rouse a sleeping Lion.'

D

THIS

THIS reasoning I allow to be just, if these evils do really, and usually follow from *bathing*. But here it is we must distinguish between *bathing*, and *improper bathing*. I shall now endeavour to shew, that these mischiefs arise from *improper bathing* only, and how they may be guarded against by prudent management.

ONE of the most common causes of improper bathing is the following vulgar error.

SICK People believe that they come to the bath for the use of the bath-waters *only*. A bleeding, a vomit, or a purge they think to be a sufficient preparation. They are so eager to begin with the waters, that they count even those few previous steps loss of time ; and if any farther means are proposed, as proper to precede their entering upon a course of drinking the waters, and bathing, they grow quite impatient. ‘ They have taken physick
‘ enough

' enough at home, they say, and might as
 ' well have staid there, and taken it on, if
 ' that was to remove their complaints; they
 ' came hither for the use of the waters; their
 ' affairs will not permit them to stay a great
 ' while, and therefore they are resolved to
 ' begin with the only remedy they came
 ' for, without farther delays.' Accordingly
 some of gross habits, and unsound Viscera;
 stuffed with full meals, and inflamed by spi-
 rituous liquors; others emaciated, weak,
 and dispirited, worn down by their distem-
 per, and easily becoming hectic, by being
 over-heated, plunge into the Bath in a very
 improper condition. Then they are told,
 that the short stay they are ordered to make
 in the Bath can do them little good, and that
 the temperate part of it which they are ad-
 vised to bathe in at first, has too little effi-
 cacy to effect their cure, at least within the
 short time they propose to spend in attaining
 it. They are then introduced to the boiling
D 2
springs

springs, and there detained 'till all the humours are rarefied to such a great degree, as to bring on faintness, sickness, vertigos, and palpitations of the heart. However, if these symptoms go off, the hopes of a speedy cure, and being taught to believe that these are the usual attendants on the first bathing, they venture to bathe again in the same manner, 'till the humours in general are dissolved, the gouty matter is set afloat in a greater quantity than nature can discharge; a high burning Fever is raised, followed perhaps by a Pleurisy, a Peripneumony, inflammations of the Viscera, or even an Apoplexy; and the patient may justly be said to have died of *improper bathing*.

Is it a wonder then that *such* cases, (the *circumstances* of which never reach the ears of those who hear of them at a distance,) should prejudice persons against *bathing*, who labour under complaints, very like to them,
in

in which its use had proved so fatal? The short history, by that time it has left the walls of *Bath*, contains no more than the name of the distemper, the *bathing* and the unhappy effects. From such histories it is inferred that *bathing* is dangerous to gouty constitutions; and the physicians, to whom they are transmitted, pronounce against it *rightly*. But the premises are wrong; for the case is imperfectly, and often, on other accounts, unfairly represented.

HAVING described some of the ill effects of *improper bathing*, and shewn that the prejudice against *bathing in general* flows from Mens confounding *improper* with *proper bathing*, and (from the imperfect histories transmitted to them) unjustly ascribing the ill consequences of the *former* to the latter. I now come to give the best advice I can, to my gouty friends, by which they may know how to use our baths with safety and benefit.

WHEN

WHEN a person comes to the Bath for the recovery of his health, it appears but reasonable that he should commit himself to the care of some gentleman, who has made it his business to acquire the knowledge of the right use of the hot waters, by a diligent observation of their effects on human bodies, diseased in a thousand different manners, which cannot be obtained without natural sagacity, an improved judgment, and a long and patient attendance on the sick. When he has chosen such a director, he should firmly resolve to follow the rules which he shall lay down for his conduct, otherwise he will continually be tormented with doubts, and scruples; and by hearkening to every pretender's opinion, he will have none of his own to act by. Many trifle away their whole time in a fruitless search after what they should do, instead of doing what they ought, 'till at last, finding they receive no benefit, or are worse than when they

they came, they condemn the Waters, and quit them in disgust.

THIS observation is applicable to all the sick who come hither for relief; let their cases be what they will.

THE Physician, when he is called to visit the patient, will acquaint himself with his age, temperament, and manner of living; with the species of his distemper, and its first appearance; whether it be hereditary, or acquired; its returns, duration, and manner of leaving him; how his health is in the intervals, and what difference he finds between his former, and latter fits.

ALL these circumstances being duly enquired into, he will set himself about the work of preparation, not slightly, and by prescribing things according to custom, but by such methods as the particular case, with which he has now made himself acquainted, shall

shall indicate. The young, and the robust, who have had but few fits, will be relieved by what would destroy the aged, and infirm, who are almost worn out by the distemper. The sanguine, florid, and plethoric, will bear many, and large evacuations; while the thin, pale, and cold constitutions may be hurt by almost any evacuations at all. The general preparatory intentions must be to unload the body of all gross superfluous humours; to cool it by temperate diet, and to take off the viscosity of the fluids, as much as possible, before bathing is attempted. By these means there will be room in the vessels to bear the rarefaction of the fluids, which being attenuated by the hot water, will pass easily in the finest series of Pipes, thro' which they may be driven by the accelerated circulation. Thus prepared, a gouty person may bathe safely, if his Viscera be found, and untainted by any other distemper.

THE

THE direction for the manner of bathing requires more skill than is commonly imagined. The Physician's knowledge of all the particular circumstances of the patient's case, and constitution, can alone enable him to give it rightly. In general, the bather must go into the most moderate bath at first, and his stay in it must be short. He must go very leisurely from one degree of heat to another, and lengthen his stay in the water, as his Physician shall direct, who will likewise appoint the times for repeating it from what alterations he observes bathing has produced in his patient's body.

IF the person who bathes is young, not very sanguine, nor full of gross humours; has had but few fits, and those so critical as not to leave any stiffness in the joints, contractions, or gumminess of the Tendons; or œdematous swellings of the legs, a common evacuation, or two, will sufficiently prepare

E

him

him for going into the moderate Bath twice a week, and staying in it half an hour at a time, having first drank the waters ten days. Nothing can tend more to the preservation of health than a short course of bathing after this manner. It washes off all the dead dry scarce skin; opens, and cleanses the milliary glands, and consequently promotes a free perspiration, by which the recrements of the body are copiously carry'd off. Besides, it softens the vessels, and makes them capable of yielding to the protruding force of the circulation, which being accelerated by the heat of the Bath, sweeps away all small concretions, which may stick to their sides, and lay a foundation for future obstructions, if not thus removed. Persons who have gone thro' this course, of drinking and bathing, will be extremely well prepared for Sea-bathing, which they may use during the summer months with great advantage, as it will brace, and strengthen their solids, and give
fresh

fresh vigour to their whole constitution. There are several species of Gouts which differ widely from that regular one, which I have already described, and from one another, each requiring a particular manner of treatment.

THAT which is commonly called a *deaf Gout* appears in the following shape.

AFTER a few twinges in the Toe, with a slight redness of the joint, just sufficient to determine the nature of the distemper, the whole Foot, and the small of the Leg swell, and grow œdematous; no more pain is felt; the part is heavy, and cold, and continues in that state some weeks, from which when it begins to decline, and the tumour subsides, the other foot and leg are affected in the same manner. This sort generally attends persons who have an hereditary taint; are born with weak fibres; are of a full, bloated

leucophlegmatic habit, which will not raise a fever strong enough to grind and expel the *gouty matter* thro' the small series of vessels, which are the seat of inflammation, and acute pains, in more robust constitutions. But the little gouty matter that was protruded, as far as the weak circulation could carry it, unassisted by a fever, is immediately absorbed, and poisoning the lymph, curdles it, and renders it incapable of circulating freely in the dependent limbs, and therefore they are a long while before they recover their natural shape.

PERSONS thus affected have no occasion for total immersion. They must depend upon Bark, Steel, and Bitters, to attenuate *their* *fluids*, & to strengthen, and invigorate their *solids*. But when the swelling is almost gone, putting their legs, for ten minutes, into a pail of the King's-Bath-Water, *not too hot*, will dissolve the remaining viscidities, and contribute

to

to the restoration of a free circulation. When the parts are almost restored to their natural size, and only a weakness remains from their former distention, nothing will be of so much service as gentle friction, which should be repeated morning and evening, and continued at least half an hour every time, till the solid parts have recovered their tone.

A THIRD sort of Gout is when the matter is more viscid, and yet less acrid than it is in the truly inflammatory kind. It gets into the Tendons, but is not fine enough to pass through them. It lodges in them and lies quiet; thickens, hardens, contracts them, and renders them unfit for muscular motion; but is not sharp enough to corrode them, or to curdle their juices into chalk. Persons crippled by this sort of Gout may safely use bathing, pumping, and rubbing, assisted perhaps with some penetrating, stimulating,
and

and dissolving liniments. They generally receive great benefit from these means, and nothing is more common, or a more pleasing sight, than their crutches, hung up in the Baths as grateful memorials.

I MIGHT likewise mention an irregular, flying, or nervous Gout, which is sometimes original, but oftner the consequence of a regular one becoming irregular. The Matter in this sort is of a very volatile *phlogistick* nature, passing like lightning, or *electrical* fire, through the whole body, causing darting pains in every part, attended with convulsive twitchings, and severe cramps, especially when the person is falling asleep; sometimes fixing for a very short time in the joints, with redness, inflammation, and acute pain; but perhaps after a few minutes, the joint grows pale and easy, to the great mortification of the patient, who wants it to fix, and produce a critical fit, as by that alone he has hopes

hopes of expelling this *subfultory Demon* which so cruelly torments him. By degrees the spirits appear to be tainted; they grow inert, languid, and vapid; the man becomes hypochondriacal; the appetite fails; digestion is imperfect; flatuffles prevail; the flesh wastes; a nervous atrophy is threatened.

UNDER these circumstances I think the Cross-Bath will afford great assistance, as it promotes perspiration, dilutes and sweetens all the humors, and possibly quenches the *phlogistic aura* by its soft waters passing through the *vasa imbalantia* into the circulation; obviating that rigidity of the fibres which is gradually coming on, and preventing the scarf-skin from crusting over the mouths of the milliary glands.

TEN or fifteen minutes, twice a week, will be long enough for such persons to stay in this Bath, in order to obtain the benefit
proposed

proposed, without being heated or weakened by it. Used with this caution, its gentle warmth, and penetrating moisture, I say, will greatly assist the deobstruent, alterative, and nervous medicines, which may be thought proper for them, with the waters.

WE now come to treat of another sort of Patients, labouring under a very different state of the gout from any yet mentioned; whose case require a much nicer, and more cautious management. Those I mean who have long laboured under the distemper, which by its frequent and violent attacks, has made havock of their constitutions; depraving the appetite, weakening the digestion, tearing the small vessels, depositing a cretaceous matter in the joints, tendons, and membranes; impairing, or destroying their action; and rendering life itself a burthen to the miserable sufferers.

WHITHER

WHITHER shall these poor creatures fly for succour? whither but to those waters, from which, under providence, so many in like circumstances have found relief!

THE Stomachs of such persons are generally loaded with tough phlegm, bilious and acrid juices, which destroy the appetite, rack them with wind, create heart-burns and loathings, and instead of refreshing sleep, occasion continued uneasiness, and restlessness. Vomits are by some *altogether* condemned in gouty cases; but, under these circumstances, I have always judged them to be absolutely necessary, and have found them, by long experience, safe and efficacious, as many to whom I might now appeal, can witness.

The Right Hon. the Lord Viscount *Palmerston*, being here while I was writing these sheets, was pleased to read them over, and to

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give

give me leave to relate his case, which was as follows.

ABOUT seventeen years ago, his lordship had the Gout in his Stomach, to a very violent degree. His Physicians, in *London*, used their utmost endeavours to remove it, but without success. They ordered him to the Bath, and, with much difficulty, he got hither, continuing extremely ill during the whole journey. Being arrived here, he immediately committed himself to the care of one of the most eminent physicians of the place. I was soon after called to a consultation with him. I found his lordship under very sharp pains in the region of his stomach, attended with continual sickness and reachings, throwing up every thing he took down, and with it much viscid sour phlegm, and bilious matter. It appeared to me unreasonable to try any longer what hot cordial medicines would do, while, if they could be
forced

forced down the throat, they could not be retained in the stomach long enough to do any good. I therefore proposed a *Wine-Vomit*, but that was thought a dangerous practice, and was strenuously opposed. However with much difficulty I got over the objections, and his Lordship's life appearing to be in great danger, without some immediate relief, a vomit was given. The success answered our wishes; the pains were relieved, and the reachings ceased; Medicines staid in his stomach, and he passed the following night comfortably. This relief encouraged us to give him another vomit, which cleared his stomach so effectually, that both food, and the little physick he had then occasion for, sat easy in it; his appetite returned; he drank the waters without interruption; recovered his flesh, and strength gradually; and I have the pleasure to believe, that by these means, under the blessing of provi-

dence, our country hath thus long enjoyed this truly noble, and worthy gentleman.

THE manner in which I generally proceed in vomiting gouty patients is as follows.

TAKE from one ounce to two ounces of the infusion of *Ipecacuanta* in Wine.

Two drachms of the tincture of *Sena*. mix these for a draught.

WHEN this Emetic begins to operate, it is to be work'd off with two parts of *Camomile-Flower* Tea, to one of *Old Mountain*, or *Red-Port* Wine. If the patient is used to drink too much Wine, I chuse he should promote the vomitings with that sort which he likes best, because it gives him an aversion to it for some days afterwards, and he is the more easily induced to submit to the restraint his physician ought to lay upon him, in the article of drinking.

THREE

THREE or four full pukes are sufficient. By this method they vomit easily, and the stomach is left so warm and comfortable that they sleep sound without any opiate, or cordial, and wake the next morning refreshed, and chearful, sensible of more ease than they have felt for a long time before. After this vomit they seldom fail of having the remainder of the humors, which had been stirred up by the operation, carried off by the intestines.

BUT I would not here be thought to suggest that vomits are to be given in all the attacks the Gout may make on the stomach. When the pains are violent, the reachings plainly spasmodic, and without any signs of a load of humors in the stomach, such irritations may be dangerous. But when nature appears to be making ineffectual efforts to get rid of a burthen by vomiting, I think
we

we cannot relieve the patient but by assisting her endeavours.

PROPER evacuations of all kinds, suitable to the case, having been previously administered, the next intention should be to strengthen the stomach and bowels, by drinking the Bath waters, ten days at least before bathing be attempted. They will cleanse the first passages; comfort, and strengthen the solids; and entering into the blood, and mixing with the mass of juices, they will render them more fluid, and capable of passing through the canals, tho' rarefied, and accelerated in their circulation by the warmth of the Bath.

HERE again great judgment, and skilful experience are required rightly to distinguish from which fountain, and in what quantities every particular patient ought to drink.

THOSE

THOSE who have cold, lax bowels, are subject to gouty colics, loofenesses, and flatulles, want of appetite, and morning reachings, should drink of the King's Spring, beginning with a small quantity, taking it in bed, soon after they rise, or an hour after their breakfast, as they are found to agree best. The quantity must be encreased as the observation of their effects shall direct, for no general rule can be laid down concerning it. When the waters of this spring are drank in small quantities, they are very apt to cause costiveness, which must be removed by encreasing the quantity, or changing the water for that of the Hot-Bath, as it is commonly called, tho' not in reality hotter than the King's. But tho' this water sometimes proves opening, yet it often fails our expectations, and we are forced to have recourse to small doses of *Pil. Rufi*, *Tinctura Sacra*, or *Tinctura Senæ*, repeated as we find occasion. But when the sick person is by habit subject to costiveness, with

with dry rigid fibres, easily heated, and inclined to be feverish, we ought, after purging him gently with the cooler, softer, and milder cathartics, to recommend the Hot-Bath-Waters, and if they prove too heating, to have recourse to those of the Cross-Bath, which are much more cooling, and opening than the former, and may be drank with safety, and benefit, in many cases, in which either of the other springs would be hurtful.

THE lungs of some gouty persons are so tender, and so easily inflamed, that it would be hazardous for them to drink either of the waters, immediately from the pump. If *they do drink them*, they ought to have them brought to their lodgings, and to let them stand six minutes, that their volatile and heating particles may fly off, and then, by putting one spoonful of Asses or Cow's milk into each glass, they will become safe, and beneficial.

I CANNOT forbear mentioning a very offensive custom of putting Milk, and a variety of medicines into the waters at the pump, which then become *mere vehicles*, their specific properties being destroyed by the mixture. I therefore advise my patients to take their physick at their lodgings, and then come and drink their waters pure at the spring, by which they themselves will have the full benefit of both, without disturbing others by disagreeable sights, and ungrateful smells.

THE relief, which men crippled by the gout expect from bathing, is, that the waters will gradually dissolve the gouty matter, wherever lodged, and that by softening, and relaxing the vessels, they will procure it to be thrown off by perspiration or sweat, or to be absorbed, and returned into the circulation, and by that to be driven out of the body, with the larger secretions. Great care must therefore be taken, that this *matter* be not too suddenly

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denly dissolved in large quantities, by too long a stay in the bath, or too intense a degree of heat. Whether the last bathing has had this ill effect, the Physician will discover by the state in which he finds his patient, the evening of the day he bathes. If he finds him feverish, he may be sure that some of the gouty *matter* is dissolved and got into the blood, and that nature is labouring to get rid of it. He must then wait 'till she has performed this necessary work, which will probably be in thirty or forty hours, by a turbid urine, or foetid sweat. Should the physician neglect this inquiry, and suffer his patient to bathe again, and by that means force more gouty matter into the blood, before what is already there is expelled, a high and dangerous fever may chance to follow; for the quantity of this matter may be so abundant, that nature shall not be able to discharge it by the common emunctories, and then there is hazard of its being deposited upon any of the
Viscera,

Viscera, the Lungs, or the Brain, and so prove fatal.

WHEN this fever is first discovered, patience, abstinence from bathing, and from every kind of meat and drink which is inflaming; the use of Wine-Whey, or Bath-Water-Whey, drank warm, and plentifully, will be all the assistance nature will generally want to carry it off; for by these means the gouty matter will be disposed to pass out of the body by sweat, or urine. But if the fever rises so high, by the repetition of bathing while it still subsists, that it is not to be conquered by these gentle means, bleeding will then become necessary, and perhaps once opening a vein will not be sufficient. If the Person is costive, an emollient Clyster must empty the bowels, and a little Spirit of Nitre may be added to his wheys. But if the fever still continues obstinate, the best end to be expected of it is a critical fit, which

will effectually prevent all thoughts of bathing again, 'till that has had its course.

BUT if the gouty matter, brought into the blood by the last bathing, is discharged again by the common emunctories, and the Physician observes no fever, pain in the head, or restlessness to remain, then, and not 'till then, he may permit his patient to bathe again, and to repeat his bathings, at proper intervals, encreasing the degree of heat, and lengthening his stay in the water, tho' very cautiously, 'till he perceives that there is a greater quantity of fresh gouty matter brought into the blood than can be separated from it without another fever. When he perceives that to be the case, I need not repeat how warily he is to proceed, let the infirm person be ever so impatient. But if he, through ignorance, obstinacy, or prejudice, will hurry on in bathing faster than he can do with safety, the Physician, after honestly declaring
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to him the danger of such conduct, ought to leave him to that management, for which he cannot be answerable.

FROM what has been said, I think it plain that rubbing, and pumping the parts affected, ought not to be rashly attempted in this kind of gout, for by these powerful dissolvers, and dislodgers of gouty matter, a greater quantity of it may at once be thrown into the blood than would have been by several bathings. The propriety, and safety of these operations must be judged of by the nature and obstinacy of the obstructing matter. Whatever can be removed by bathing only, cannot want these more powerful applications. But where the obstructing matter is of a fix'd kind, and the part affected cold, as in tendinous contractions, then they are by all means to be called in to our assistance, and they often do great service where milder means fail. They are both to be used with great caution,
rubbing

rubbing in the most gentle manner, with a soft hand only, and receiving not above fifty strokes of the pump at first, and encreasing the number slowly. After these operations all the Physician's sagacity is to be exerted in discovering when nature begins again to be overloaded with gouty matter, thrown into the blood, and then he must see that she has got quite clear of it, before he suffers any fresh quantity to be dissolved.

It is impossible to say exactly how long the patient should continue in the Bath, because the particular circumstances of each bather can alone determine it. But it must appear from what has been said, that staying in too long, must be an error of dangerous consequence. Yet this is a very common mistake; for many people think that the longer they stay in the water, the sooner they shall be cured, and act as wisely as the poor man did, who was ordered to take
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three purges in three weeks, but, to save time, took them all together.

THIS error, I must confess, is sometimes purely the patient's misfortune, and not his fault. The great concourse of bathers is now very disproportional to the conveniencies of our baths for their reception. The passages out of them are so few, that a poor weak hysterical creature, who cannot bear the Bath above ten minutes, is often kept in it above half an hour, and sometimes much longer, to the great peril of her life, at least to the irreparable damage of her health. This is so great a grievance, so much, and so justly complained of, that I don't doubt but the legislature will judge it a matter highly worthy their consideration, and redress, by enabling the corporation to make the baths more safe and useful. Our magistrates are so sensible of this great inconvenience, that they are, at this time, adding some new slips
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(places to dress and undress in) to the King's Bath, for which they will deserve the thanks of all who shall hereafter want the use of that Bath.

WHEN the bather returns to his bed, which should not be made too hot as it usually is, let him drink a draught of warm Bath-Water Whey, which is made by putting *double* the quantity of the water, fresh from the King's-Bath Pump, to one of Milk, just ready to boil. This Whey is a soft, pleasant, nourishing liquor; diluting without heat; gently diuretic, and cleansing; and it may be drank with advantage by those who cannot bear the heat of the waters.

OUR Patient, now in bed, should sweat but moderately, least by draining off too great a quantity of the fluids, the gouty particles (some portion of which we suppose to have been return'd into the blood by the last bathing)

bathing) by being brought too near together, should form *Moleculæ*, which cannot easily pass the secretory strainers, through which they ought to be discharged.

IT is of late become very fashionable to go abroad on bathing days, even in inclement seasons. But tho' some are so hardy as not to feel any immediate ill effects, from thus exposing themselves to the raw and chill air, while all their pores are open, and gaping to receive it, let me intreat all invalids, particularly the gouty ones we have been speaking of, not to be so impatient, under one Day's confinement, as to run the risk of their lives by escaping from it.

THE danger of exposing the body to the cold air, while it is rendered so susceptible of it's worst influence by warm bathing, is too evident to want farther explanation. Examples of the bad consequences are numerous, and

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amongst them I might mention Governor *Fitz-Williams*, one of the most robust men I ever saw. This gentleman, after having been in the Bath, walked to *Lincomb*, on a cold day; he returned with a pain in his side, a pleurisy ensued; that was eased by copious bleedings; but a peripneumony succeeded, which eluded all the means his Physicians could use for his relief, and he died by this imprudence.

HAVING now carried the patient through his first bathing, we must leave it to his Physician to find out when he shall be in a proper state to repeat it safely, or whether he ought to repeat it at all.

MANY persons come hither for relief, under such circumstances of ill health, as cannot properly admit the use of the Bath-Waters, in any shape.

THE Bath Physicians have a very difficult part to act with these people, who tell them, ' That they have come a long and painful journey ; their only hopes are in Bath-Waters ; they have been assured by many ' that they are the only Remedy in their ' case. May they not try a little, and with ' caution ? ' Who can deny so moving a request of a poor miserable creature, who would almost die of despair if he was absolutely refused the trial ?

WHAT shall the Physician do in a case like this, when he really believes that the waters are unsafe for his patient, and yet the sick man, encouraged by his friends, perseveres in his importunity to make the trial ? I think he may suffer his modesty to overcome his reasonable reluctance, and to suspect his general experience may deceive him in this instance, especially as that experience has informed him that men daily receive benefit

from applications very unpromising. And then, having previously repeated his doubts arising from his established opinion, he has nothing further to do but to obviate, all he can, the ill consequences he apprehends, by so circumstancing his patient's use of the bath as may render its good effects most operative, and its ill effects least pernicious. If he proceeds with this humanity and caution, whatever the success shall be, he will have no reason to blame himself, tho' perhaps he may not escape the censure of others.

It may be asked, how long a gouty patient should continue in a course of bathing? that, I answer, circumstances, and those often unforeseen, must determine. Every day new accidents happen; new indications present themselves. These make the time, necessary for receiving relief from bathing, very uncertain, and give a different length to every particular patient's use of this remedy. The
gouty

gouty matter you see is to be dissolved very leasurely, and the bathing to be intermitted as often as the Physician finds it necessary, in order to give nature time to expel it out of the body, when it has been dissolved. In general then, a person who expects to find much relief in gouty lamenesses, must submit to a long, and tedious course of bathing, repeated at proper intervals, and for many seasons successively. So that he ought not to attempt it, without a great stock of patience, and a firm resolution to persevere. To patience he must join temperance of every kind. He must not only abstain from all high food, and spirituous liquors, but he must restrain every inordinate passion; and if he exerts his best endeavours, it is to be hoped, that on the issue, he will find that, together with the alleviation of his bodily disorders, he has freed himself from those worse diseases of the mind, whereby he will be better able to bear and cure what remains of the other.

HOWEVER.

HOWEVER terrible this distemper of the Gout may appear in my description, great numbers come hither every year in hopes to procure a fit of it. Severe must their sufferings be who can seek so bitter a remedy ! of these, some have never had a fit, but with great reason suppose they have the seeds of the distemper in their constitution, and believe that they never shall be well 'till the gout can be made to appear in its genuine form. They have endeavoured to make it confess itself by pouring down strong *stomach* Wines, falsely so called, and have added as many hot spirituous Bitters as would have burnt up a Salamander, to no purpose. By this regimen, their stomach aches, head aches, vertigos, nauseas wandering pains, or whatever gave the first suspicions of a latent gout, being encreased ; their appetite destroy'd ; their spirits dissipated, and their nerves shattered, they come hither in full assurance that these waters will immediately
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drive the gouty matter into the extremities, and that then they shall be freed from all their torments.

OTHERS there are who have had many regular fits of the gout, and enjoyed good health, while it continued its periodical visits. But for some years past the fits kept not their regular periods, and when they have appeared, they have not proceeded in the manner they used to do, while they proved critical. Hence hath arisen a variety of bad symptoms, which have before been mentioned, and for the relief of which they have most probably gone through a like course of gout-expelling medicines. Hither these likewise come in hopes of recalling their *old necessary evil* to their assistance.

UNDER both these circumstances Bath-Waters seldom fail of doing great service. They remove the ill effects of the former regimen,

regimen, by cooling, and moistening the overdryed and crisped fibres of the stomach, and by that means taking off their nau-seae, and morning reachings; by degrees restoring the appetite, and rectifying the digestion, the good effects of which will soon be felt throughout the nervous system. By thus strengthening the whole machine, nature will be enabled to throw out the gout, if there be any in the habit, and this is the only means, that I know of, by which it can safely, and critically be expelled, and fixed in the extremities.

AFTER moderate evacuations, and a short course of drinking the waters, assisted with proper attenuating medicines, by which any viscidities of the juices may be dissolved, and the gouty molecularae, which were entangled in them, may be set free and broke in peices, they should bathe in the Cross-Bath twice a week. By keeping in the moderate
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uniform heat of this Bath, which is not much above the heat of human blood, for half an hour at a time, the circulation will be made so perfect thro' all the Series of vessels then open, and such numbers of canals, which were very lately shut up, will again be made pervious, that the bodily machine will have its full force of expulsion unresisted, and a regular fit will most probably be produced.

EVERY night of the day they do not bathe they should put their legs into warm Bath-Water, just hot enough to relax the solids without much rarefying the fluids, by which the equilibrium being taken off, nature will deposite what she wants to get rid of upon the weakest parts, where she finds the least resistance, which will apparently be in the feet.

AT this time, when the juices are duly attenuated, and the resistance of the extre-
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mities weakened, it will be right to brace the solids a little by light preparations of Bark, and Steel.

It may be thought, perhaps, that I have represented *proper bathing*, in *old gouty cases* and broken constitutions, as so nice an affair, and so full of hazard, that few who believe what I have said will venture upon it. It probably will be so; but I could not but represent the matter *truly*, as the intention of these papers is the safety of the sick, not the dishonest interest of the Physician.

Should not a skilful mariner, who gives a chart of a very difficult navigation, to mark the rocks and quicksands which he finds in the sea which he describes? If what I have said deters some from *bathing* at all, and every body from *improper bathing*, I hope it may encourage others (under all the given cautions) to use the only means we know of, by which
they

they can obtain any considerable abatement of their sufferings. But, to carry on the allusion ; it may be asked, whether it be not more prudent for persons to stay safe in port, and content themselves without the riches of the *Indias*, than, by attempting the voyage, to run themselves into the hazards of a long, and dangerous navigation? was the being eased from sharp pains, and the recovery of the use of limbs, tho' even in a very moderate degree, of no more value than the expected rewards of such hazardous voyages, I should frankly answer that the *wise man* would stay at home. But as the prize sought after is of so much more real value than any thing which either of the *Indias* can afford, I think it as reasonable that gouty people should seek for relief from bathing, under the cautions here laid down, as I am sure it is imprudent for them to risque their lives by doing it in an *improper* manner.

WHETHER the head is to be dipt at the first entrance into the Bath, or not, is a question which has for some time puzzled the bathers, as it seems to have done their advisers. One should think that that way of reasoning which has established the practice of going head foremost into the Cold-Bath, should teach us that the contrary must be right in the use of the Hot Bath. In both the intention is to prevent the humours being too impetuously drove into the head. Cold contracts the Vessels, drives their contents into distant parts of the body, and guards against too great an influx into the vessels so contracted. When a bather descends into the water, all the parts which are immersed undergo a great pressure from the weight of the circumambient fluid. The antagonist of this pressure is the rarefaction of the humours in the vessels by the heat of the bath. These two contranitent powers reciprocating with the alternate contractions, and dilatations of the

the heart, produce an oscillatory motion which greatly contributes to attenuate, mix, and dissolve all the juices of the body. These two different powers conspire to throw too great a quantity of humours, and with too great a velocity, into the head. What can preserve it from the violence of this attack? nothing that we know but the keeping it constantly exposed to the cold air, that its vessels may be still in a contracted state, able to resist the too great influx from the parts of the body under Water. I hold it therefore to be most prudent for the generality of bathers not to dip their heads at all, for I have known very teizing head aches caused by relaxing the vessels of the head, and thereby admitting too great a flux of humours into them from the compressed parts. But in some cases, such as cutaneous ulcers, dry scabs and scurfs, head-achs from the rigidity of the membranes, or stricture of the vessels, it is necessary to bathe the head. When it is so it
ought

ought to be done in the flip, juſt before the bather riſes out of the water.

I SHALL beg the reader's further patience, while I offer to his conſideration a few hints concerning the ſeaſons moſt proper for drinking the Bath-Waters, and bathing in them, and then conclude.

THE extremes of hot and cold weather, are improper for phyſick of any kind, not demanded by neceſſity, which has neither law, nor rule. I think *April*, *May*, and *June*, the latter part of *Auguſt*, all *September*, and *October*, are preferable to any other months for drinking and bathing, tho' both may be done at other times if the circumſtances of the patient require immediate relief. A temperate warm air keeps the pores open, and preſerves a free paſſage, by which nature may conſtantly throw off the recrements of the juices, which are attenuated by the drinking,
and

and by which she may likewise get rid of the dissolved gouty matter, which is brought into the circulation by bathing. In warm or temperate weather the bathers are not so liable to colds and their ill consequences, the air having then but few of the particles in it which produce those disorders. But what is most likely to be agreeable to the bathers is, that in such weather they will not be obliged to that strict confinement on bathing days which is absolutely necessary in colder seasons. The benefits of a warm dry air, and serene sky, point out the unfitness of a contrary *Constitution* of weather for the use of our waters. They therefore who prefer the winter, when the pores are shut up; when colds, coughs, sore throats, peripneumonies, pleurifies, and all inflammatory diseases are epidemical, which can't but be exasperated by the heating qualities of these waters, seem to me to be more in the interest of the doctors than of themselves. But as the state
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of the mind has a great influence on the constitution of the body, perhaps the pleasures of a *full* season may more than make amends for the inconveniencies of a *cold* one.

FROM the foregoing pages I think we may draw the following conclusions.

THAT bathing in hot Baths is the most general solvent we know of all the humours of the body, whether natural, or morbid.

THAT the most general solvent is the most probable means by which obstructions of all kinds may be removed.

THAT the Gout arises from obstructions, formed in a particular series of vessels, thro' which its specific matter cannot pass any longer without the help of a fever.

THAT

THAT Gouts are of various kinds, and that their diversity depends upon the different sizes of the particles of that specific matter, the diameters of the vessels, the strength of the solids, and the height of the fever.

THAT the obstructing matter should be discharged out of the body as soon as possible after it has been dissolved, and brought again into the general circulation by warm bathing.

THAT till *that* is discharged, dissolving a fresh quantity, by repeated bathings, is very dangerous.

THAT previous evacuations are necessary to unload the habit, and clean out the first passages, amongst which vomits are often safe, and useful.

THAT attenuating, and aperitive medicines are proper to render the humors more fluid, and to open a free way by which the dissolved moleculæ, which caused the obstructions, may be discharged with the secretions.

THAT bleedings, purgings, diaphoretics, and diuretics, are sometimes necessary to assist nature in the expulsion of the dissolved matter.

THAT too great a degree of heat in the Bath; too long a stay in it; too hot a bed after bathing; a profuse sweat too long continued; being exposed to cold air on bathing days; or eating and drinking too plentifully of high seasoned meats, or inflaming liquors, during a course of bathing, are always improper, often dangerous, sometimes fatal.

THAT

THAT a course of bathing should be long, and by intervals, as the various effects it has upon the bather shall require.

THAT the head should in no case be dipt 'till the Bather is rising out of the Water.

THAT the temperate seasons of the year are most proper, safe, and useful, both for drinking, and bathing.

THAT there can be no stated rules laid down, because the peculiar circumstances of each patient, which are very uncertain, must be our guide in practice.

AND from the whole I hope we learn that by the prudent use of the hot baths, most chronical diseases, and gouty cases in particular, not in an inflamed state, may be relieved, and sometimes cured ; while persons

in high health may be greatly hurt, by wantonly sporting with so powerful an *alterative* of the present state of the animal machine, either from sickness to health, or from health to sickness.

F I N I S.

Page 28, Line 16, 17, read,

To attenuate their fluids, and to strengthen and invigorate their solids.

